



## SECTION 2: Hazards identification

See Section 16 for the full text of the H statements declared above.

See Section 11 for more detailed information on health effects and symptoms.

### 2.2 Label elements

<b>Signal word</b>	: * I9121 ISE Ammonia Electrode Reference Solution	No signal word. No signal word.
<b>Hazard statements</b>	: * I9121 ISE Ammonia Electrode Reference Solution	No known significant effects or critical hazards. No known significant effects or critical hazards.
<b>Precautionary statements</b>		
<b>Prevention</b>	: * I9121 ISE Ammonia Electrode Reference Solution	Not applicable. Not applicable.
<b>Response</b>	: * I9121 ISE Ammonia Electrode Reference Solution	Not applicable. Not applicable.
<b>Storage</b>	: * I9121 ISE Ammonia Electrode Reference Solution	Not applicable. Not applicable.
<b>Disposal</b>	: * I9121 ISE Ammonia Electrode Reference Solution	Not applicable. Not applicable.
<b>Hazardous ingredients</b>	: No hazardous ingredient	
<b>Supplemental label elements</b>	: * I9121 ISE Ammonia Electrode Reference Solution	Safety data sheet available on request. Safety data sheet available on request.
<b>Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles</b>	: * I9121 ISE Ammonia Electrode Reference Solution	Not applicable. Not applicable.
<b>Special packaging requirements</b>		
<b>Tactile warning of danger</b>	: * I9121 ISE Ammonia Electrode Reference Solution	Not applicable. Not applicable.

### 2.3 Other hazards

<b>Other hazards which do not result in classification</b>	: * I9121 ISE Ammonia Electrode Reference Solution	None known. None known.
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## SECTION 3: Composition/information on ingredients

<b>3.2 Mixtures</b>	: * I9121 ISE Ammonia Electrode Reference Solution	Mixture (encapsulated in article) Mixture
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Product/ingredient name	Identifiers	%	Classification	Type
* I9121 ISE Ethanediol	EC: 203-473-3 CAS: 107-21-1 Index: 603-027-00-1	≥10 - <25	Acute Tox. 4, H302	[1] [2]
<b>Ammonia Electrode Reference Solution</b> Sodium chloride	EC: 231-598-3	<10	Eye Irrit. 2, H319	[1]

**SECTION 3: Composition/information on ingredients**

	CAS: 7647-14-5		<b>See Section 16 for the full text of the H statements declared above.</b>	
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There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

Type

[1] Substance classified with a health or environmental hazard

[2] Substance with a workplace exposure limit

[3] Substance meets the criteria for PBT according to Regulation (EC) No. 1907/2006, Annex XIII

[4] Substance meets the criteria for vPvB according to Regulation (EC) No. 1907/2006, Annex XIII

[5] Substance of equivalent concern

**SECTION 4: First aid measures****4.1 Description of first aid measures**

<b>Eye contact</b>	: * I9121 ISE	Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Get medical attention if irritation occurs.
	Ammonia Electrode Reference Solution	Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Get medical attention if irritation occurs.
<b>Inhalation</b>	: * I9121 ISE	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.
	Ammonia Electrode Reference Solution	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.
<b>Skin contact</b>	: * I9121 ISE	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.
	Ammonia Electrode Reference Solution	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.
<b>Ingestion</b>	: * I9121 ISE	Wash out mouth with water. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Do not induce vomiting unless directed to do so by medical personnel. Get medical attention if symptoms occur.
	Ammonia Electrode Reference Solution	Wash out mouth with water. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Do not induce vomiting unless directed to do so by medical personnel. Get medical attention if symptoms occur.
<b>Protection of first-aiders</b>	: * I9121 ISE	No action shall be taken involving any personal risk or without suitable training.
	Ammonia Electrode Reference Solution	No action shall be taken involving any personal risk or without suitable training.

**4.2 Most important symptoms and effects, both acute and delayed**Potential acute health effects

<b>Eye contact</b>	: * I9121 ISE	No known significant effects or critical hazards.
	Ammonia Electrode Reference Solution	No known significant effects or critical hazards.
<b>Inhalation</b>	: * I9121 ISE	No known significant effects or critical hazards.
	Ammonia Electrode Reference Solution	No known significant effects or critical hazards.

## SECTION 4: First aid measures

<b>Skin contact</b>	: * I9121 ISE Ammonia Electrode Reference Solution	No known significant effects or critical hazards. No known significant effects or critical hazards.
<b>Ingestion</b>	: * I9121 ISE Ammonia Electrode Reference Solution	No known significant effects or critical hazards. No known significant effects or critical hazards.

### Over-exposure signs/symptoms

<b>Eye contact</b>	: * I9121 ISE Ammonia Electrode Reference Solution	No specific data. No specific data.
<b>Inhalation</b>	: * I9121 ISE Ammonia Electrode Reference Solution	No specific data. No specific data.
<b>Skin contact</b>	: * I9121 ISE Ammonia Electrode Reference Solution	No specific data. No specific data.
<b>Ingestion</b>	: * I9121 ISE Ammonia Electrode Reference Solution	No specific data. No specific data.

### 4.3 Indication of any immediate medical attention and special treatment needed

<b>Notes to physician</b>	: * I9121 ISE  Ammonia Electrode Reference Solution	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled. Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
<b>Specific treatments</b>	: * I9121 ISE Ammonia Electrode Reference Solution	No specific treatment. No specific treatment.

## SECTION 5: Firefighting measures

### 5.1 Extinguishing media

<b>Suitable extinguishing media</b>	: * I9121 ISE Ammonia Electrode Reference Solution	Use an extinguishing agent suitable for the surrounding fire. Use an extinguishing agent suitable for the surrounding fire.
<b>Unsuitable extinguishing media</b>	: * I9121 ISE Ammonia Electrode Reference Solution	None known. None known.

### 5.2 Special hazards arising from the substance or mixture

<b>Hazards from the substance or mixture</b>	: * I9121 ISE  Ammonia Electrode Reference Solution	In a fire or if heated, a pressure increase will occur and the container may burst. In a fire or if heated, a pressure increase will occur and the container may burst.
<b>Hazardous combustion products</b>	: * I9121 ISE  Ammonia Electrode Reference Solution	Decomposition products may include the following materials: carbon dioxide carbon monoxide phosphorus oxides halogenated compounds metal oxide/oxides Decomposition products may include the following materials:  halogenated compounds metal oxide/oxides

### 5.3 Advice for firefighters

## SECTION 5: Firefighting measures

<b>Special precautions for fire-fighters</b>	: * I9121 ISE  Ammonia Electrode Reference Solution	Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.
<b>Special protective equipment for fire-fighters</b>	: * I9121 ISE  Ammonia Electrode Reference Solution	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. Clothing for fire-fighters (including helmets, protective boots and gloves) conforming to European standard EN 469 will provide a basic level of protection for chemical incidents. Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. Clothing for fire-fighters (including helmets, protective boots and gloves) conforming to European standard EN 469 will provide a basic level of protection for chemical incidents.

## SECTION 6: Accidental release measures

### 6.1 Personal precautions, protective equipment and emergency procedures

<b>For non-emergency personnel</b>	: * I9121 ISE  Ammonia Electrode Reference Solution	No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Put on appropriate personal protective equipment. No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Put on appropriate personal protective equipment.
<b>For emergency responders</b>	: * I9121 ISE  Ammonia Electrode Reference Solution	If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel". If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

### 6.2 Environmental precautions

: * I9121 ISE  Ammonia Electrode Reference Solution	Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air). Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).
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### 6.3 Methods and material for containment and cleaning up

<b>Methods for cleaning up</b>	: * I9121 ISE  Ammonia Electrode Reference Solution	Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor. Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.
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## SECTION 6: Accidental release measures

**6.4 Reference to other sections** : See Section 1 for emergency contact information.  
See Section 8 for information on appropriate personal protective equipment.  
See Section 13 for additional waste treatment information.

## SECTION 7: Handling and storage

### 7.1 Precautions for safe handling

<b>Protective measures</b>	: * I9121 ISE  Ammonia Electrode Reference Solution	Put on appropriate personal protective equipment (see Section 8). Put on appropriate personal protective equipment (see Section 8).
<b>Advice on general occupational hygiene</b>	: * I9121 ISE  Ammonia Electrode Reference Solution	Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures. Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

### 7.2 Conditions for safe storage, including any incompatibilities

: * I9121 ISE  Ammonia Electrode Reference Solution	Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabelled containers. Use appropriate containment to avoid environmental contamination. Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabelled containers. Use appropriate containment to avoid environmental contamination.
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### 7.3 Specific end use(s)

<b>Recommendations</b>	: * I9121 ISE Ammonia Electrode Reference Solution	Industrial applications, Professional applications. Industrial applications, Professional applications.
<b>Industrial sector specific solutions</b>	: * I9121 ISE Ammonia Electrode Reference Solution	Not applicable. Not applicable.

## SECTION 8: Exposure controls/personal protection

### 8.1 Control parameters

#### Occupational exposure limits

## SECTION 8: Exposure controls/personal protection

Product/ingredient name	Exposure limit values
<p>* I9121 ISE Ethanediol</p>	<p><b>EH40/2005 WELs (United Kingdom (UK), 12/2011). Absorbed through skin.</b>                      TWA: 10 mg/m<sup>3</sup> 8 hours. Form: Particulate                      STEL: 104 mg/m<sup>3</sup> 15 minutes. Form: Vapour                      TWA: 52 mg/m<sup>3</sup> 8 hours. Form: Vapour                      STEL: 40 ppm 15 minutes. Form: Vapour                      TWA: 20 ppm 8 hours. Form: Vapour</p>

**Recommended monitoring procedures** : If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment. Reference should be made to monitoring standards, such as the following: European Standard EN 689 (Workplace atmospheres - Guidance for the assessment of exposure by inhalation to chemical agents for comparison with limit values and measurement strategy) European Standard EN 14042 (Workplace atmospheres - Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents) European Standard EN 482 (Workplace atmospheres - General requirements for the performance of procedures for the measurement of chemical agents) Reference to national guidance documents for methods for the determination of hazardous substances will also be required.

### DNELs/DMELs

No DNELs/DMELs available.

### PNECs

No PNECs available

## 8.2 Exposure controls

**Appropriate engineering controls** : Good general ventilation should be sufficient to control worker exposure to airborne contaminants.

### Individual protection measures

**Hygiene measures** : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

**Eye/face protection** : Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: safety glasses with side-shields.

### Skin protection

**Hand protection** : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary.

**Body protection** : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

**Other skin protection** : Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

**Respiratory protection** : Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use.

**SECTION 8: Exposure controls/personal protection**

**Environmental exposure controls** : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

**SECTION 9: Physical and chemical properties****9.1 Information on basic physical and chemical properties****Appearance**

<b>Physical state</b>	: * I9121 ISE Ammonia Electrode Reference Solution	Liquid. Liquid.
<b>Colour</b>	: * I9121 ISE Ammonia Electrode Reference Solution	Not available. White.
<b>Odour</b>	: * I9121 ISE Ammonia Electrode Reference Solution	Not available. Not available.
<b>Odour threshold</b>	: * I9121 ISE Ammonia Electrode Reference Solution	Not available. Not available.
<b>pH</b>	: * I9121 ISE Ammonia Electrode Reference Solution	6 6
<b>Melting point/freezing point</b>	: * I9121 ISE Ammonia Electrode Reference Solution	-25°C 0°C
<b>Initial boiling point and boiling range</b>	: * I9121 ISE Ammonia Electrode Reference Solution	110°C 100°C
<b>Flash point</b>	: * I9121 ISE Ammonia Electrode Reference Solution	Not available. Not available.
<b>Evaporation rate</b>	: * I9121 ISE Ammonia Electrode Reference Solution	Not available. Not available.
<b>Flammability (solid, gas)</b>	: * I9121 ISE Ammonia Electrode Reference Solution	Not applicable. Not applicable.
<b>Upper/lower flammability or explosive limits</b>	: * I9121 ISE Ammonia Electrode Reference Solution	Not available. Not available.
<b>Vapour pressure</b>	: * I9121 ISE Ammonia Electrode Reference Solution	Not available. Not available.
<b>Vapour density</b>	: * I9121 ISE Ammonia Electrode Reference Solution	Not available. Not available.
<b>Relative density</b>	: * I9121 ISE Ammonia Electrode Reference Solution	1.1 1
<b>Solubility(ies)</b>	: * I9121 ISE  Ammonia Electrode Reference Solution	Partially soluble in the following materials: cold water and hot water. Easily soluble in the following materials: cold water and hot water.
<b>Partition coefficient: n-octanol/water</b>	: * I9121 ISE Ammonia Electrode Reference Solution	Not available. Not available.

## SECTION 9: Physical and chemical properties

<b>Auto-ignition temperature</b>	: * I9121 ISE Ammonia Electrode Reference Solution	Not available. Not available.
<b>Decomposition temperature</b>	: * I9121 ISE Ammonia Electrode Reference Solution	Not available. Not available.
<b>Viscosity</b>	: * I9121 ISE Ammonia Electrode Reference Solution	Not available. Not available.
<b>Explosive properties</b>	: * I9121 ISE Ammonia Electrode Reference Solution	Not available. Not available.
<b>Oxidising properties</b>	: * I9121 ISE Ammonia Electrode Reference Solution	Not available. Not available.

### 9.2 Other information

No additional information.

## SECTION 10: Stability and reactivity

<b>10.1 Reactivity</b>	: * I9121 ISE  Ammonia Electrode Reference Solution	No specific test data related to reactivity available for this product or its ingredients. No specific test data related to reactivity available for this product or its ingredients.
<b>10.2 Chemical stability</b>	: * I9121 ISE Ammonia Electrode Reference Solution	The product is stable. The product is stable.
<b>10.3 Possibility of hazardous reactions</b>	: * I9121 ISE  Ammonia Electrode Reference Solution	Under normal conditions of storage and use, hazardous reactions will not occur. Under normal conditions of storage and use, hazardous reactions will not occur.
<b>10.4 Conditions to avoid</b>	: * I9121 ISE Ammonia Electrode Reference Solution	No specific data. No specific data.
<b>10.5 Incompatible materials</b>	: * I9121 ISE Ammonia Electrode Reference Solution	May react or be incompatible with oxidising materials. May react or be incompatible with oxidising materials.
<b>10.6 Hazardous decomposition products</b>	: * I9121 ISE  Ammonia Electrode Reference Solution	Under normal conditions of storage and use, hazardous decomposition products should not be produced. Under normal conditions of storage and use, hazardous decomposition products should not be produced.

## SECTION 11: Toxicological information

### 11.1 Information on toxicological effects

#### Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
* I9121 ISE Ethanediol	LD50 Oral	Rat	4700 mg/kg	-
Ammonia Electrode Reference Solution Sodium chloride	LD50 Oral	Rat	3000 mg/kg	-

## SECTION 11: Toxicological information

### Acute toxicity estimates

Route	ATE value
* I9121 ISE Oral	2500 mg/kg

### Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
* I9121 ISE Ethanediol	Eyes - Mild irritant	Rabbit	-	24 hours 500 milligrams	-
	Eyes - Mild irritant	Rabbit	-	1 hours 100 milligrams	-
	Eyes - Moderate irritant	Rabbit	-	6 hours 1440 milligrams	-
	Skin - Mild irritant	Rabbit	-	555 milligrams	-
Ammonia Electrode Reference Solution Sodium chloride	Eyes - Moderate irritant	Rabbit	-	24 hours 100 milligrams	-
	Eyes - Moderate irritant	Rabbit	-	10 milligrams	-
	Skin - Mild irritant	Rabbit	-	24 hours 500 milligrams	-

### Sensitiser

Conclusion/Summary : Not available.

### Chronic toxicity / Carcinogenicity / Mutagenicity / Teratogenicity / Reproductive toxicity

Not available.

### Specific target organ toxicity (single exposure)

Not available.

### Specific target organ toxicity (repeated exposure)

Not available.

### Aspiration hazard

Not available.

Information on likely routes of exposure : \* I9121 ISE  
Ammonia Electrode Reference Solution  
Routes of entry anticipated: Oral, Dermal, Inhalation.  
Not available.

### Potential acute health effects

**Inhalation** : \* I9121 ISE  
Ammonia Electrode Reference Solution  
No known significant effects or critical hazards.  
No known significant effects or critical hazards.

**Ingestion** : \* I9121 ISE  
Ammonia Electrode Reference Solution  
No known significant effects or critical hazards.  
No known significant effects or critical hazards.

**Skin contact** : \* I9121 ISE  
Ammonia Electrode Reference Solution  
No known significant effects or critical hazards.  
No known significant effects or critical hazards.

**Eye contact** : \* I9121 ISE  
Ammonia Electrode Reference Solution  
No known significant effects or critical hazards.  
No known significant effects or critical hazards.

### Symptoms related to the physical, chemical and toxicological characteristics

**Inhalation** : \* I9121 ISE  
Ammonia Electrode Reference Solution  
No specific data.  
No specific data.

## SECTION 11: Toxicological information

<b>Ingestion</b>	: * I9121 ISE	No specific data.
	Ammonia Electrode	No specific data.
	Reference Solution	
<b>Skin contact</b>	: * I9121 ISE	No specific data.
	Ammonia Electrode	No specific data.
	Reference Solution	
<b>Eye contact</b>	: * I9121 ISE	No specific data.
	Ammonia Electrode	No specific data.
	Reference Solution	

### Delayed and immediate effects as well as chronic effects from short and long-term exposure

#### Short term exposure

**Potential immediate effects** : Not available.

**Potential delayed effects** : Not available.

#### Long term exposure

**Potential immediate effects** : Not available.

**Potential delayed effects** : Not available.

### Potential chronic health effects

<b>General</b>	: * I9121 ISE Ammonia Electrode Reference Solution	No known significant effects or critical hazards. No known significant effects or critical hazards.
<b>Carcinogenicity</b>	: * I9121 ISE Ammonia Electrode Reference Solution	No known significant effects or critical hazards. No known significant effects or critical hazards.
<b>Mutagenicity</b>	: * I9121 ISE Ammonia Electrode Reference Solution	No known significant effects or critical hazards. No known significant effects or critical hazards.
<b>Teratogenicity</b>	: * I9121 ISE Ammonia Electrode Reference Solution	No known significant effects or critical hazards. No known significant effects or critical hazards.
<b>Developmental effects</b>	: * I9121 ISE Ammonia Electrode Reference Solution	No known significant effects or critical hazards. No known significant effects or critical hazards.
<b>Fertility effects</b>	: * I9121 ISE Ammonia Electrode Reference Solution	No known significant effects or critical hazards. No known significant effects or critical hazards.

## SECTION 12: Ecological information

### 12.1 Toxicity

Product/ingredient name	Result	Species	Exposure
* I9121 ISE Ethanediol	Acute LC50 10000000 µg/l Fresh water	Crustaceans - Ceriodaphnia dubia - Neonate	48 hours
	Acute LC50 41000000 µg/l Fresh water	Daphnia - Daphnia magna - Neonate	48 hours
	Acute LC50 8050000 µg/l Fresh water	Fish - Pimephales promelas	96 hours
Ammonia Electrode Reference Solution Sodium chloride	Acute EC50 2430000 µg/l Fresh water	Algae - Navicula seminulum	96 hours
	Acute EC50 28.85 mg/dm3 Fresh water	Algae - Pseudokirchneriella subcapitata	72 hours
	Acute EC50 519.6 mg/l Fresh water	Crustaceans - Cypris subglobosa	48 hours

## SECTION 12: Ecological information

Acute IC50 6.87 g/L Fresh water Acute LC50 1661 mg/l Fresh water Acute LC50 1000000 µg/l Fresh water Chronic LC10 781 mg/l Fresh water	Aquatic plants - Lemna minor Daphnia - Daphnia magna Fish - Morone saxatilis - Larvae Crustaceans - Hyalella azteca - Juvenile (Fledgling, Hatchling, Weanling)	96 hours 48 hours 96 hours 3 weeks
Chronic NOEC 6 g/L Fresh water Chronic NOEC 0.314 g/L Fresh water Chronic NOEC 100 mg/l Fresh water	Aquatic plants - Lemna minor Daphnia - Daphnia pulex Fish - Gambusia holbrooki - Adult	96 hours 21 days 8 weeks

### 12.2 Persistence and degradability

Not available.

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
* I9121 ISE Ethanediol	-	-	Readily

### 12.3 Bioaccumulative potential

Product/ingredient name	LogP <sub>ow</sub>	BCF	Potential
* I9121 ISE Ethanediol	-1.36	-	low

### 12.4 Mobility in soil

**Soil/water partition coefficient (K<sub>oc</sub>)** : Not available.

**Mobility** : Not available.

### 12.5 Results of PBT and vPvB assessment

**PBT** : Not applicable.

**vPvB** : Not applicable.

**12.6 Other adverse effects** : No known significant effects or critical hazards.

## SECTION 13: Disposal considerations

### 13.1 Waste treatment methods

#### Product

**Methods of disposal** : The generation of waste should be avoided or minimised wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction.

**Hazardous waste** : Within the present knowledge of the supplier, this product is not regarded as hazardous waste, as defined by EU Directive 2008/98/EC.

#### Packaging

**Methods of disposal** : The generation of waste should be avoided or minimised wherever possible. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible.

**Special precautions** : This material and its container must be disposed of in a safe way. Empty containers or liners may retain some product residues. Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers.

## SECTION 14: Transport information

### Regulatory information

ADR/RID / IMDG / IATA : Not regulated.

**14.6 Special precautions for user** : **Transport within user's premises:** always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

**14.7 Transport in bulk according to Annex II of Marpol and the IBC Code** : Not available.

## SECTION 15: Regulatory information

### 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

#### EU Regulation (EC) No. 1907/2006 (REACH)

##### Annex XIV - List of substances subject to authorisation

###### Annex XIV

None of the components are listed.

###### Substances of very high concern

None of the components are listed.

**Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles** : \* I9121 ISE Ammonia Electrode Reference Solution Not applicable. Not applicable.

#### Other EU regulations

**Europe inventory** : All components are listed or exempted.

##### Seveso Directive

This product is not controlled under the Seveso Directive.

#### National regulations

##### International regulations

#### Chemical Weapon Convention List Schedules I, II & III Chemicals

Not listed.

#### Montreal Protocol (Annexes A, B, C, E)

Not listed.

#### Stockholm Convention on Persistent Organic Pollutants

Not listed.

#### Rotterdam Convention on Prior Inform Consent (PIC)

Not listed.

#### UNECE Aarhus Protocol on POPs and Heavy Metals

Not listed.

#### International lists

##### National inventory

**Australia** : All components are listed or exempted.  
**Canada** : All components are listed or exempted.  
**China** : All components are listed or exempted.  
**Japan** : **Japan inventory (ENCS):** All components are listed or exempted.  
**Japan inventory (ISHL):** All components are listed or exempted.  
**Malaysia** : All components are listed or exempted.

## SECTION 15: Regulatory information

<b>New Zealand</b>	: All components are listed or exempted.
<b>Philippines</b>	: All components are listed or exempted.
<b>Republic of Korea</b>	: All components are listed or exempted.
<b>Taiwan</b>	: All components are listed or exempted.
<b>Turkey</b>	: Not determined.
<b>United States</b>	: All components are listed or exempted.

**15.2 Chemical safety assessment** : This product contains substances for which Chemical Safety Assessments might still be required.

## SECTION 16: Other information

Indicates information that has changed from previously issued version.

**Abbreviations and acronyms** : ATE = Acute Toxicity Estimate  
 CLP = Classification, Labelling and Packaging Regulation [Regulation (EC) No. 1272/2008]  
 DNEL = Derived No Effect Level  
 EUH statement = CLP-specific Hazard statement  
 PNEC = Predicted No Effect Concentration  
 RRN = REACH Registration Number

### Procedure used to derive the classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]

Classification	Justification
Not classified.	

**Full text of abbreviated H statements** : \* I9121 ISE  
 H302 Harmful if swallowed.

**Ammonia Electrode Reference Solution**  
 H319

Causes serious eye irritation.

**Full text of classifications [CLP/GHS]** : \* I9121 ISE  
 Acute Tox. 4, H302 ACUTE TOXICITY (oral) - Category 4

**Ammonia Electrode Reference Solution**  
 Eye Irrit. 2, H319

SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 2

**Date of issue/ Date of revision** : 28/07/2016

**Date of previous issue** : No previous validation.

**Version** : 1

**Note \*** : This product is considered an article. This Safety Data Sheet is written based on the encapsulated substance or mixture in this article. This article, when used under reasonable conditions and in accordance with the directions for use, should not present a health hazard. The substance or mixture is encapsulated in the article. Only if released due to use or processing of the article in a manner not in accordance with the product's directions for use it may present potential health and safety hazards.

### Notice to reader

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